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FW: Armstrong World Industries Referral to EPA
GILLES Bruce A
to:
Sylvia Kawabata
01/20/2010 05:52 PM
Cc:
"CHRISTENSEN Jeff", "WISTAR Gil", "BAILEY Deborah A", Joanne Labaw
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Sylvia,

This email serves as a request from the Oregon DEQ for EPA evaluation of the Armstrong World Industries St Helens facility. We are aware that this evaluation may lead to listing of the facility on the Federal National Priorities List. The rationale for this referral is outlined below.

The DEQ Cleanup Program issued a Unilateral Order for the Armstrong World Industries on October 8, 2001 requiring a remedial investigation, feasibility study, design and remedial action. The attached fact sheet provides information on the status of the project as of October 2009.

The Armstrong property is quite large; covering approximately 175 acres comprised of developed and undeveloped uplands above flood elevations, lowland/wetland areas that are submerged in portions of the year, and in-water portions. The designated wetlands on the property cover approximately 50% of the property.

The investigations completed to date have identified very high concentrations of dioxins and furans, mercury and arsenic contamination in the lowland and in-water portions of the project area. These concentrations exceed hot spot criteria for DEQ Cleanup and likely principal threat waste under federal Superfund criteria. The levels of contamination raise significant concern with respect to fish consumption. In a November 17, 2009 letter to the parties DEQ stated that fish tissue data were needed to determine whether a fish advisory was necessary in the area. The parties collectively refused to perform the work in a January 4, 2010 letter to DEQ.

Since October, Armstrong and former owners/operators Kaiser Gypsum and Owens Corning have refused to conduct fish tissue sampling to evaluate potential current exposure risks to anglers and wildlife posed by site contaminants present in sediment within Scappoose Bay. We request EPA assistance in evaluating this exposure concern and potential cleanup of the site given the size and complexity of the contamination, the parties recalcitrance and DEQ's lack of sufficient orphan funding to complete the investigation and cleanup in a timely manner.

We look forward to EPA's response to this request.

Sincerely,

Bruce

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Is it necessary to print this e-mail?

<<Final Armstrong Fact Sheet 10-09.pdf>>

Fact Sheet

Cleanup of Armstrong World Industries St. Helens Site (ECSI 91)

Background

This fact sheet describes current cleanup issues concerning the Armstrong World Industries/St. Helens Fiberboard Plant site in St. Helens, Oregon. The roughly 175-acre site is at 1645 Railroad Ave. and lies along Scappoose Bay, about one mile south of the city. The mouth of Milton Creek lies along the northeastern site boundary. The site is generally surrounded by wetlands areas and mostly lies within the 100-year flood zone.

This property has been used for fiberboard manufacturing since 1929. The former owners include Fir-Tex Insulation Board (1929 to 1938), Dant and Russell (1939 to 1956), Kaiser Gypsum (1956 to 1978), and Owens Coming Fiberglas Corporation (1978 to 1987). The current owner (since 1987) is Armstrong World Industries.

Plant process wastewater was directly discharged into bordering wetlands and Scappoose Bay until Armstrong acquired the facility in 1987. A wastewater treatment facility was built in 1960 to separate solids from the wastewater. During its ownership of the property, Armstrong has treated wastewater prior to discharging it to the City of St. Helens wastewater treatment plant.

DEQ identified the site as a concern in the early 1990s. The U.S. Environmental Protection Agency completed a site prioritization for the property in 1993 but referred the site back to the state. The state had identified the site as a low priority but in 2000, based on DEQ's revised approach to the Site Discovery review process, DEQ reevaluated the site to high-priority status.

In 2001, DEQ issued a Unilateral Order to Armstrong World Industries requiring a remedial investigation and feasibility study to address on-going environmental concerns. In 2002, DEQ reached a settlement agreement with Owens Coming to resolve cleanup liability for upland property as part of the company's bankruptcy. Armstrong investigation work has continued since that time, with partial funding of the work coming from the Owens Coming settlement.

In 2008, DEQ and Kaiser Gypsum Company signed a voluntary agreement for investigation of the site's in-water portion. Armstrong and Owens Coming are participating in the in-water study.

Current cleanup investigation activities

This site's cleanup investigation is nearly complete. Primary chemicals of concern there include metals and dioxins/furans.

The investigation has included sampling and laboratory analyses of soil, groundwater and sediment. Investigators collected mouse tissue samples to check for accumulation of contaminants in tissue, which have shown arsenic at levels of concern.

Sufficient data have been collected to perform a risk assessment for the site. Although the risk assessment reports have not been completed, DEQ believes there is ample evidence indicating unacceptable risk at the site.

The parties are completing a work plan to evaluate cleanup alternatives for the site's in-water portion. In addition, further upland testing of stormwater runoff is planned to determine the need for upland source control measures.

Next steps

The next three steps for this site are:

1. Completing the stormwater study to determine what cleanup alternatives should be considered for the operations area
2. Completing evaluation of cleanup alternatives for the site's in-water portion
3. Completing the remedial investigation report and risk assessment reports

As long as the responsible parties continue to fund the feasibility study work, DEQ should have necessary information to identify cleanup objectives within 18 months. Cleanup remedy development will likely take an additional six to 12 months.

The responsible party's financial status is an issue for the cleanup and for future development of waterfront activities at the site. DEQ has had discussions with the federal Superfund program about assisting with the project if it is determined that the parties cannot, or are unwilling, to cover cleanup costs.

Further information

Documents on the site are available for review at DEQ's Northwest Region Office, 2020 SW Fourth Ave., Portland. The site documents can be found in the Northwest Region Environmental

State of Oregon
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Quality

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DEQ is a leader in restoring, maintaining and enhancing the quality of Oregon's air, land and water.

Last Updated: 10-19-09
By: Debbie Bailey
09-NWR- ###

Cleanup Site Information (ECSI) Database files under ECSI No. 91. To access the site summary information in DEQ's ECSI database, go to http://www.deq.state.or.us/lq/ECSI/ecsiquery.asp , then enter 91 in the Site ID box and click "Submit" at the bottom of the page. Next click the link labeled 91 in the Site ID/Info column. If you have questions please contact Debbie Bailey at 503-229-6811 or bailey.deborah.a@deq.state.or.us.

Alternative formats

Alternative formats (Braille, large type) of this document are available. Contact DEQ's Office of Communications and Outreach, Portland, at (503) 229-5696 or call toll-free in Oregon at 1-800-452-4011, ext. 5696

http://cfpub.epa.gov/supercpad/cursites/cactinfo.cfm?id=1000451
Last updated on Monday, February 1st, 2010.

Superfund

Search Superfund Site Information

OWENS-CORNING FIBERGLASS CORP

Actions

Site Info | Aliases | Operable Units | Contacts
Actions | Contaminants | Site-Specific Documents

OU	Action Name	Qualifier	Lead	Actual Start	Actual Completion
00	DISCOVERY		F		06/01/1981
00	PRELIMINARY ASSESSMENT	H	F	07/27/1984	08/01/1984
00	SITE INSPECTION	N	F	01/03/1985	02/06/1985
00	ARCHIVE SITE		EP		06/11/1993

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Oregon Department of Environmental Quality

Oregon DEQ: Site Details Environmental Cleanup Site Information (ECSI) Database

This report shows data entered as of February 25, 2010 at 12:53:13 PM

This report contains site details, organized into the following sections: 1) Site Photos (appears only if the site has photos); 2) General Site Information; 3) Site Characteristics; 4) Substance Contamination Information; 5) Investigative, Remedial and Administrative Actions; and 6) Site Environmental Controls (i.e., institutional or engineering controls; appears only if DEQ has applied one or more such controls to the site). A key to certain acronyms and terms used in the report appears at the bottom of the page.

Go to DEQ's Facility Profiler to see a site map as well is information on what other DEQ programs may be active at this site.

General Site Information

Site ID: 91	Site Name: Armstrong World Industries - St. Helens		CERCLIS No: 093476109	
Address:	1645 Railroad Ave. St. Helens 97051			
	County: Columbia		Region: Northwest	
Other location information:	The site lies along Scappoose Bay, about one mile south of the City of St. Helens. The mouth of Milton Creek lies along the northeastern site boundary.			
Investigation Status:	Suspect site requiring further investigation			
	Brownfield Site: No	NPL Site: No	Orphan Site: No	Study Area: No
Property:	Twnshp/Range/Sect: 4N , 1W , 9		Tax Lots: 600	
	Latitude: 45.8391 deg.	Longitude: -122.8186 deg.	Site Size: 175 acres	
Other Site Names:	Owens-Corning Fiberglass Corp.			

Site Characteristics

General Site Description:

Site History:

Contamination Information:

(7/23/92 KPD/SAS) Fiberboard production began on the site in 1930. There is little information as to waste disposal practices prior to 1960. It is known that wastewater was discharged directly into Scappoose Bay, that solids such as cardboard and fiberboard scraps were burned on-site, and that an asphalt-naphtha solution was used in the production of some boards. A wastewater treatment facility was built in 1960 to separate solids from the wastewater. The resulting sludge was allowed to pile up in a rock-lined aeration lagoon. The sludge was diverted to an unlined holding pond in 1973. 400,000 gallons of sludge from the aeration lagoon were disposed of in the Santosh Disposal Facility in 1980. The pond was drained and backfilled in 1989, burying 7,200 cubic yards of sludge. Naphtha has been detected in soils and on groundwater near the site's former naphtha storage area. Stormwater permit data indicates that stormwater runoff from the site is

	contaminated with metals - primarily zinc, lead, and copper.
Manner and Time of Release:	Sludge stored in unlined pond; discharge to bay and wetlands; spills or tank/piping leaks; time of release: unknown.
Hazardous Substances/Waste Types:	Aluminum sulfate, arsenic, asbestos, asphalt, chlorine, naphthalene, waste acrylic paint and solvents (believed to have been used during the production process), naphtha constituents, methylene chloride, acetone, carbon disulfide, methyl ethyl ketone, di-n-butylphthalate, bis(2-ethylhexyl) phthalate, PAHs, pentachlorophenol, BTEX. Zinc, lead, and copper are present in stormwater.
Pathways:	The aquifer below the site is very shallow (sand overlying fractured basalt) and there is evidence that some chemicals have migrated into the groundwater. Scappoose Bay borders the plant on the south and east. Land use in the immediate vicinity of the plant is light industry, but residences are located within 0.25 mile. The St.Helens Water Department collects municipal drinking water from the Columbia River 4 miles downstream from the site, and has a city drinking water supply well about a mile southwest of the site. Sludge from the holding pond was applied to off-site farmland in the 1970s. The primary targets of concern would be direct exposures for utility trench workers, contact or inhalation exposures for on-site workers, and ecological impacts to: aquatic life within the surrounding wetlands; aquatic life within the bay (coho and chinook salmon, steelhead, searrun cutthroat trout); bald eagles; or to sensitive plant species (Columbia cress and Gray's howellia). The facility is generally surrounded by wetlands areas. Most of the site lies within the 100-year flood zone.
Environmental/Health Threats:	Chrysene was detected in surface impoundment soils at a concentration above DEQ's Industrial Soil Cleanup level, although the concentration was below the EPA Region IX PRG for industrial soils. Dibutylphthalate was detected in surface impoundment soils at a concentration that could represent an ecological threat to birds. Methylene chloride was detected in the impoundment's surface water at a concentration above EPA Region IX tap water PRG and DEQ's groundwater reference concentration. Free-product petroleum was encountered when installing monitoring wells at the site. Two domestic wells lie within about 0.25 mile of the site. Both are in basalt, which is very shallow at the site (although well logs indicate it is fractured). It is unclear if drinking water is actually threatened. Site runoff contains levels of zinc, lead, and copper that could represent a threat to aquatic life. Surface and subsurface contaminants may represent a threat to on-site workers or utility trench workers. (10/1/02 ACV/VCP) High arsenic concentration detected in sediments at outfalls (August 2002). TPH and dioxins detected at outfalls, in wetlands, or in old aeration lagoons. Potentially elevated levels of arsenic and dioxins were observed in mouse tissue during the Level III ecological risk assessment. Sediment data suggest that there is not unacceptable risk to benthic organisms but that the bioaccumulation pathway must be evaluated.
Status of Investigative or Remedial Action:	(12/31/07DAB) Armstrong declared bankruptcy because of asbestos claims. Owens Corning, the previous owner, also subsequently declared bankruptcy for the same reason. DEQ requested that Armstrong and Owens work together on a site-wide RI. Failure of party negotiations and bankruptcies caused DEQ to issue a Unilateral Order to Armstrong, as current property owner, to perform an RI. DEQ continued discussion with Owens and another previous owner, Hansen Building Materials, for involvement/contribution on the RI. In 2002 DEQ negotiated a consent decree with Owens Corning Fiberglass for a release from liability for site contamination above the low water mark making funds available for the investigation. Armstrong and

Hanson Building Materials negotiated a 50/50 cost share agreement for the upland site investigation and remedial action. Three phases of remedial investigation have been completed at the site. The primary issues at the site are related to the 100 acres of lowlands which includes wetlands. Arsenic, mercury, lead, cyanide, PAHs, dioxins and petroleum are present in wetland soil.

(9/08 DAB) An ecological terrestrial risk assessment was initiated in 2006 including additional soil sampling and mouse tissue sampling. The sampling has been completed with the completion of Area 4 in spring 2008 and conclusions regarding the adequacy of the data for the terrestrial ecological risk assessment can now be made. Sediment sampling was performed in June 2008, the data report has been submitted. (3/09) Additional archived samples have been analyzed. (10/09) The revised report including the new data has been submitted to DEQ. The human health risk assessment for the upland facility location of the project has been submitted to DEQ. The risk assessment will be finalized following additional work planned in the upland area related to stormwater. In spring 2009 DEQ discussed tissue collection with the parties to address the bioaccumulation pathway. DEQ and the parties could not come to agreement on the scope of the investigation. Currently the parties are developing a scope of work for remedial action in the in-water portion of the site under the assumption that there is unacceptable risk.

The parties have prepared a work plan for stormwater investigation to address the question of any remaining sources to the wetlands and Scappoose Bay in the upland/facility operations area. DEQ is currently reviewing the work plan.

Data Sources: EPA CERCLA Preliminary Assessment. DEQ Stormwater Permit data for Armstrong (Water Quality Files). DEQ NWR Site Response Files.

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
ACETONE	Groundwater		10/23/1987
ACETONE	Soil	95 ppb	2/22/1989
ANTIMONY	Sludge	TCLP extract	10/31/1980
ARSENIC	Sediment	1300 ppm	8/1/2002
BIS(2-ETHYLHEXYL)PHTHALATE	Groundwater		10/23/1987
CARBON DISULFIDE	Sediment		2/22/1989
CHRYSENE	Soil	5700 ppb	2/22/1989
COPPER	Other	Stormwater runoff	11/30/1993
DI-n-BUTYL PHTHALATE	Sludge		10/31/1980
DI-n-BUTYL PHTHALATE	Soil	1400 ppb	2/22/1989
DIOXINS	Soil	100 ppm	8/1/2002
LEAD	Other	Stormwater runoff	11/4/1996
METHYL ETHYL KETONE	Sludge		2/22/1989
METHYLENE CHLORIDE	Groundwater		10/23/1987
METHYLENE CHLORIDE	Sludge		1/1/1980
METHYLENE CHLORIDE	Surface Water	230 ppb	2/22/1989
OIL OR FUEL RELATED COMPOUNDS	Groundwater		10/23/1989
PENTACHLOROPHENOL	Sludge		10/31/1980
PYRENE	Soil	1400 ppb	2/22/1989
SELENIUM	Sludge	TCLP extract	1/31/1980

TOLUENE	Groundwater		10/23/1987
TOLUENE	Soil	36 ppb	2/22/1989
ZINC	Other	Stormwater runoff	3/26/1997

Investigative, Remedial and Administrative Actions

Action	Start Date	Compl. Date	Resp. Staff	Lead Pgm
REMEDIAL INVESTIGATION (Primary Action)	10/01/2001		Deborah Bailey	VCS

View Full Report Showing Action History

Key to Certain Acronyms and Terms in this Report:

CERCLIS No.: The U.S. EPA's Hazardous Waste Site identification number, shown only if EPA has been involved at the site.
Region: DEQ divides the state into three regions, Eastern, Northwest, and Western; the regional office shown is responsible for site investigation/cleanup.
NPL Site: Is this site on EPA's National Priority List (i.e., a federal Superfund site)? (Y/N).
Orphan Site: Has DEQ's Orphan Program been active at this site? (Y/N). The Orphan Program uses state funds to clean up high-priority sites where owners and operators responsible for the contamination are absent, or are unable or unwilling to use their own resources for cleanup.
Study Area: Is this site a Study Area? (Y/N). Study Areas are groupings of individual ECSI sites that may be contributing to a larger, area-wide problem. ECSI assigns unique Site ID numbers to both individual sites and to Study Areas.
Pathways: A description of human or environmental resources that site contamination could affect.
Lead Pgm: This column refers to the Cleanup Program affiliation of the DEQ employee responsible for the action shown. SAS or SAP = Site Assessment; VCS or VCP = Voluntary Cleanup; ICP = Independent Cleanup; SRS or SRP = Site Response (enforcement cleanup); ORP = Orphan Program.

You may be able to obtain more information about this site by contacting Deborah Bailey at the Northwest regional office or via email at bailey.deborah.a@deq.state.or.us. If this does not work, you may contact Gil Wistar at (503) 229-5512, or via email at wistar.gil@deq.state.or.us or contact the Northwest regional office.